

Bandwidth Assessment Tool

Introduction and BETA Release

Agenda

- (5 min) Introduction
- (10 min) Overview of Bandwidth Assessment Tool
- (15 min) View of the Tool
- (10 min) Potential Uses / Use Examples
- (10 min) Release – Schedule and Training / Support
- (10 min) Q&A

Introduction

State Broadband Initiative (SBI) Programs



Areas of Expertise

- **Public Safety Planning and Implementation:** Our public safety experience includes Next Generation 9-1-1 planning and implementation, land mobile radio, automated systems, wireless and broadband, Public Safety Answering Point (PSAP) operations, and governance and policy.
- **Broadband Planning:** We actively engage key stakeholders to quickly and thoroughly investigate innovative, desirable, and doable outcomes. The scenarios are tested, evaluated and easily converted into an action plan that is loaded into an online system to track progress and measure results.
- **Broadband Mapping:** We build integrated, interactive systems designed to provide meaningful context for broadband data. We collect, assemble, process, and visualize data using geographic and conceptual mapping techniques. These systems are built to inform planning processes, monitor change, and inform stakeholders.



Cincinnati – Seattle – Washington DC

- Internationally recognized as leading telecommunication network modeling, costing and profitability experts:
 - **Broadband and USF models:** CACM for the FCC, BAM used by FCC for NBP, CPM California, CPM Hong Kong, BCPM, NUSC Australia, CostPro-Core New Zealand
 - **Loop model:** CostQuest Local Loop in use by carriers with operations in over 35 states, adopted and well received by commissions in all UNE and Tax proceedings
 - **Wireless Costing:** States, CTIA, Wireless Carriers for more than 30 states, reverse auctions
 - **Wireless Work:** USAC Filings, Audits and Reviews, USAC/USF Workshops, GIS Analysis, Policy Support
 - **Interconnection model:** CostQuest-Core in use by the New Zealand Commerce Commission to set rates
 - **Profitability models:** COMPASS, MAPS, ProfitMap, CPMS, and MIDAS – economic based contribution models over various business dimensions
- Global experience in developing, supporting regulatory and competitive practices.

The WHAT and WHY of the Bandwidth Assessment Tool (BAT)

The What and Why...

Understanding Demand with the Bandwidth Assessment Tool

- Fueled by the realized benefits of information, communication, and commerce over the Internet, businesses and residential demand for more flexible, higher speed services are increasing. **The need for additional bandwidth is expected to grow exponentially year over year**, especially in densely populated or urban areas. **Determining the appropriate bandwidth needed in a given area will therefore become an increasingly important task.**
- **CostQuest Associates/Link America** has identified this need and has developed a web based **Bandwidth Assessment Tool** that **helps consumers understand their broadband needs, helps state and local planners determine and meet the expanding broadband requirements of their businesses and communities, and connects supply (providers) with demand.**

The What and Why...

Understanding Demand with the Bandwidth Assessment Tool

Two central issues:

- Helping businesses, Community Anchor Institutions (CAI) and consumers understand / articulate their broadband service requirements and connect with service providers.
- Supporting economic / community development initiatives as they work to identify (and aggregate) demand, promote availability and interact with providers.

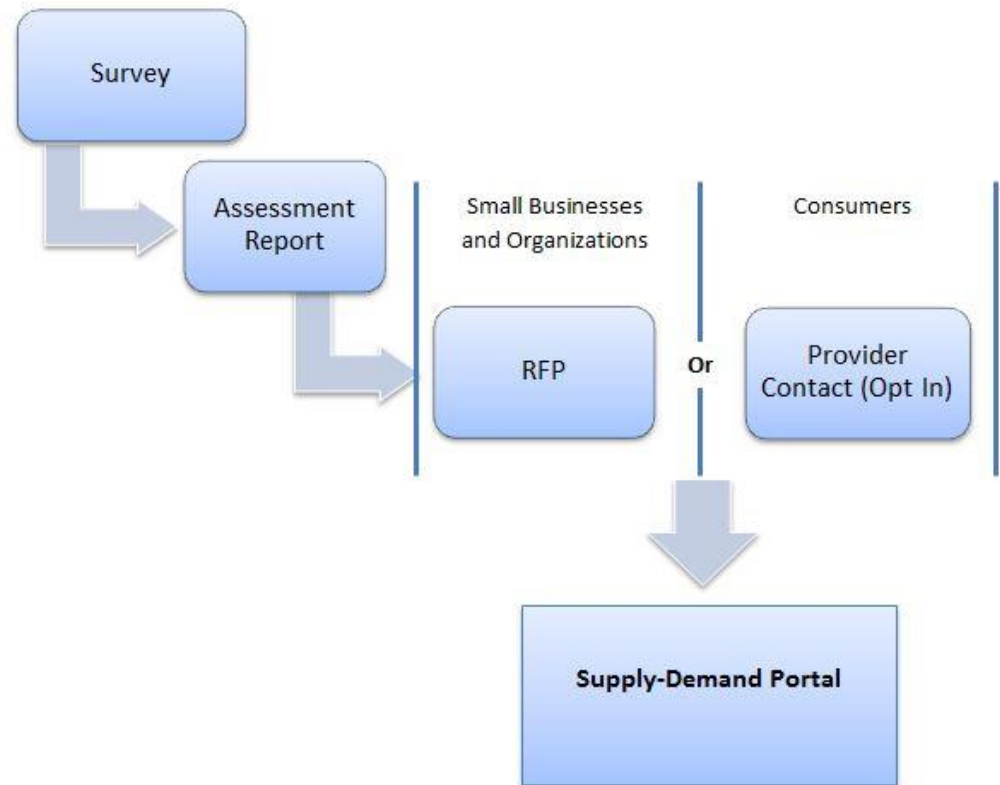


“The emerging broadband market is at times poorly informed...from both the supply and the demand side of the conversation. Businesses struggle to understand and articulate their requirements and providers are challenged to identify specific demand as it changes so quickly.”

The What and Why...

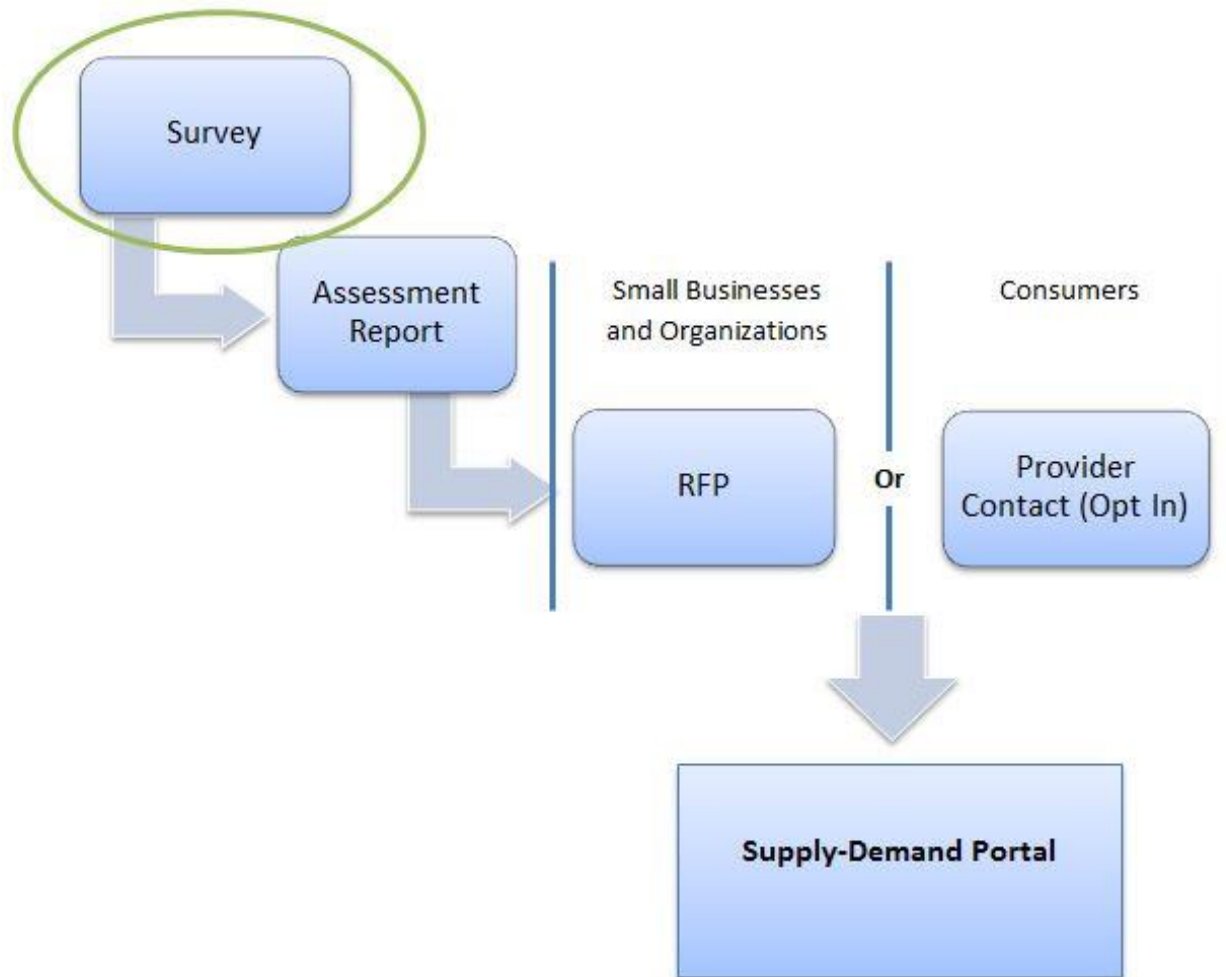
Understanding Demand with the Bandwidth Assessment Tool

- Survey
- Assessment Report
- RFP Questionnaire
- Supply-Demand Portal



The Survey

Bandwidth Assessment Tool Overview



The Survey

Understanding Demand with the Bandwidth Assessment Tool



LINKAMERICA

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CostQuest Associates Bandwidth Assessment Tool

Businesses today are redefining bandwidth as a requirement and no longer as a value added service. Bandwidth is now an essential commodity, in the same category as power, water, sewer, and other vital services. In order for businesses and other entities to be effective in the information intensive economy, they need bandwidth to be delivered on a redundant infrastructure.

Fueled by the realized benefits of information, communication, and commerce over the Internet, businesses and residential demand for more flexible, higher speed services are increasing. The need for additional bandwidth is expected to grow exponentially year over year, especially in densely populated or urban areas. With this type of rapid growth, some rural, state, and local planners are finding that providers have less incentive to provide the bandwidth necessary for rural businesses to compete in today's economy or it's not economically feasible for most rural entities to obtain. Part of this has to do with having virtually little to no accurate way of determining demand in a given area. CostQuest Associates has identified this need and we have created a web based **Bandwidth Assessment Tool** that helps consumers understand their broadband needs and helps state and local planners determine and meet the expanding broadband requirements of their businesses and communities.

For today's businesses and communities to benefit from the infrastructure build-outs and advances in technology, state and local planners must become "Bandwidth Needs Intelligent." Communities must evolve beyond the limited closed systems currently in place and continue to build upon more open transport systems therein providing businesses and homes with more choice at lower costs. Traditional solutions (i.e., of single-use telephones, or video service providers) will not be able to accommodate the required diversity in service demand (i.e. HD Quality Video Streaming, VoIP, Advanced Interactive Applications, etc.) due primarily to lack of flexibility and/or limited capacity. To help inform this issue, CostQuest Associates' real-world **Bandwidth Assessment Tool** is designed to provide an accurate interpretation of end user needs and allows them to connect with companies who might supply them with the services that meet those needs.

Modify Survey: Bandwidth Assessment Survey >>

View Results: Bandwidth Assessment Survey >>

Download Blank Assessment Survey >>

<https://apps.costquest.com/bat/home>

The Survey

Understanding Demand with the Bandwidth Assessment Tool

Areas of Assessment

- **Current service** – location, current speed, type of service, etc.
- **User profile** – concurrent users, PCs/tablets, avg hours use per user, VOIP, etc.
- **Video** – streaming time, minutes down/up loading, avg video use per user, etc.
- **Social Media** – concurrent users, time on media per user per day, etc.
- **Audio** – streaming time, minutes down/up loading, avg audio use per user, etc.
- **Online apps and gaming** – concurrent users, avg online app hours per user, etc.
- **Basic web** – concurrent users, number sites per user per day, email/attm qty, etc.
- **Data files, smart phones/tablets** – software installs/updates per month, concurrent cloud users, megabytes backup per day per user, etc.

The Survey

Understanding Demand with the Bandwidth Assessment Tool

SURVEY GROUP

If you are a community planner or organization that wishes survey results to support grouping and aggregation, please select from the list below or request a new survey group be created. Survey groups are created instantly, though they will only be referenced by a system generated key until their names are accepted by a system administrator. If a new group name is provided, the system will attempt to create the group and ignore the existing group selection.

3 Existing Group

4 New Group

Register as a user...and create a Group User, if warranted (e.g., Economic Development effort focused on a city/town)

Demand & Use Survey

CURRENT SERVICE

1 Does this address currently have internet service?

☐ Don't Know
☐ No
☒ Yes

2 If "Yes" to question #1, what speed/bandwidth do you currently achieve?

☐ Don't Know
☐ 56 kbps (Dial-up)
☐ 54-128 kbps (ISDN)
☐ 1.5 mbps (DSL, T1)
☒ 3 mbps (DSL, fast)
☐ 6 mbps (Cable, fast)
☐ 10 mbps (Wireless)

3 Is the address you are assessing for a(n):

☒ Residential
☐ Business
☐ Farm
☐ Other

Provide "current service" information

Demand & Use Survey

100%

USER PROFILE

4 How many people (family members, employees, students, residents) will need to use broadband at this address?

☐ None
☐ 1
☒ 2
☐ 3
☐ 4
☐ 5-10
☐ 11-20
☐ 21-40
☐ 41-100
☐ 100+

5 How many computers or connections are needed?

☐ None
☐ 1
☒ 2
☐ 3
☐ 4
☐ 5-10
☐ 11-20
☐ 21-40
☐ 41-100
☐ 100+

6 What is the average number (or expected) of hours the internet will be in use per day

6

7 What are the maximum number of users you expect concurrently?

☐ None
☐ 1
☐ 2
☐ 3
☒ 4
☐ 5-10
☐ 11-20

8 How many mobile devices or tablets will need to access the internet wirelessly?

☐ None
☐ 1
☐ 2
☐ 3
☒ 4
☐ 5-10
☐ 11-20

Provide "user profile" information

The Survey

Understanding Demand with the Bandwidth Assessment Tool

Demand & Use Survey

40%

USAGE: SOCIAL MEDIA

19 Estimated number of concurrent users using social media sites daily (e.g., Facebook, G+, etc.)

☐ None
☐ 1
☒ 2
☐ 3
☐ 4
☐ 5-10
☐ 11-20
☐ 21-40
☐ 41-100
☐ 100+

20 Estimated number of hours per day per user spent on social media sites

4

Demand & Use Survey

80%

USAGE: BASIC WEB

37 Estimated number of concurrent users emailing and web browsing

☐ None
☐ 1
☒ 2
☐ 3
☐ 4
☐ 5-10
☐ 11-20
☐ 21-40
☐ 41-100
☐ 100+

40 Estimated number of received email attachments per day per user

☐ None
☐ 1
☐ 2
☐ 3
☐ 4
☒ 5-10
☐ 11-20
☐ 21-40
☐ 41-100
☐ 100+

38 Estimated number of web sites accessed per day per user

☐ None
☐ 1
☐ 2
☐ 3
☐ 4
☒ 5-10
☐ 11-20

41 Estimated number of sent email attachments per day per user

☐ None
☐ 1
☐ 2
☐ 3
☒ 4
☐ 5-10
☐ 11-20

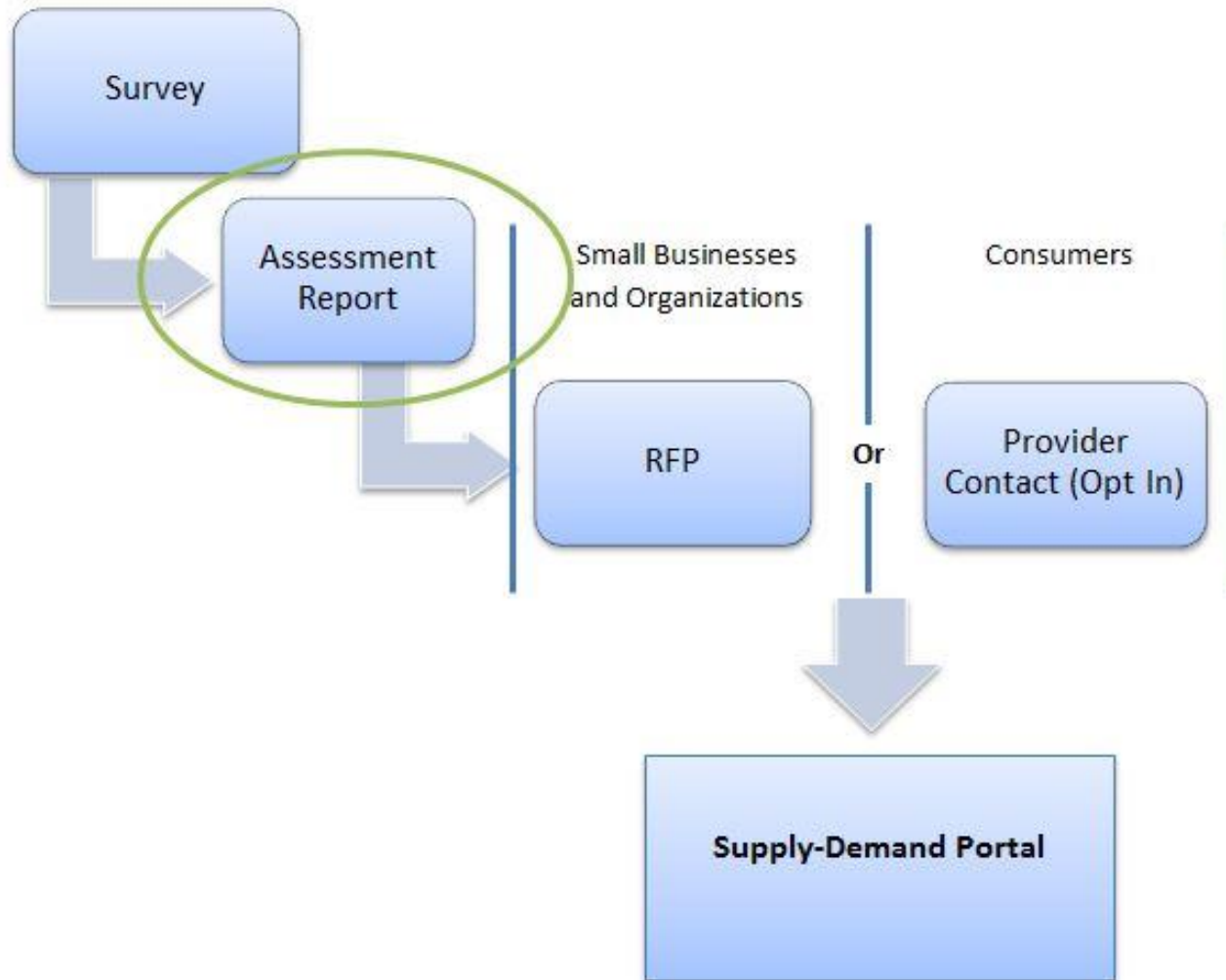
Proceed thru the usage assessment...

... video
... voice
... social media
... audio
... online apps and gaming
... photos
... data files, smartphones/tablets

The Assessment Report

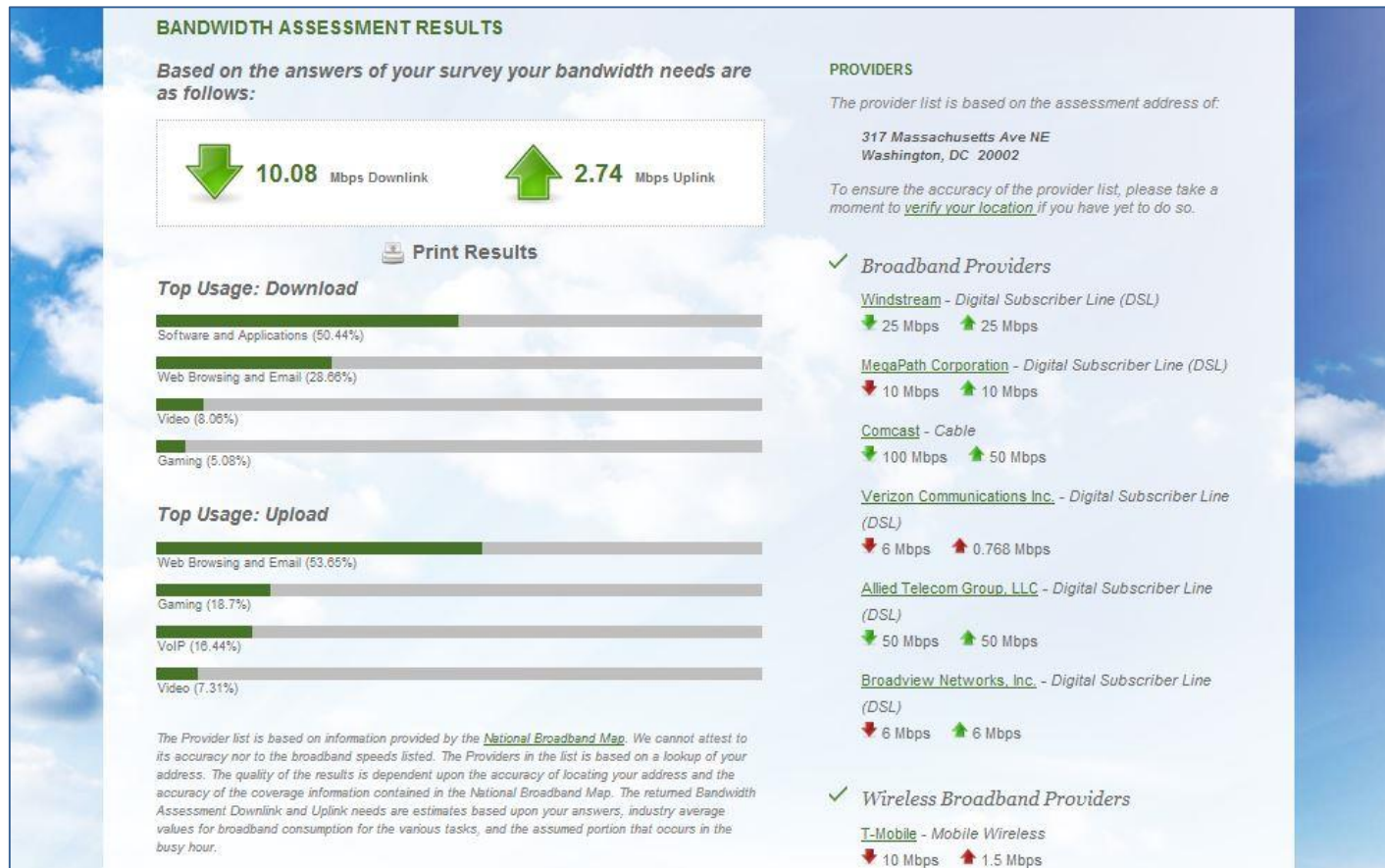
The Assessment Report

Understanding Demand with the Bandwidth Assessment Tool



The Assessment Report

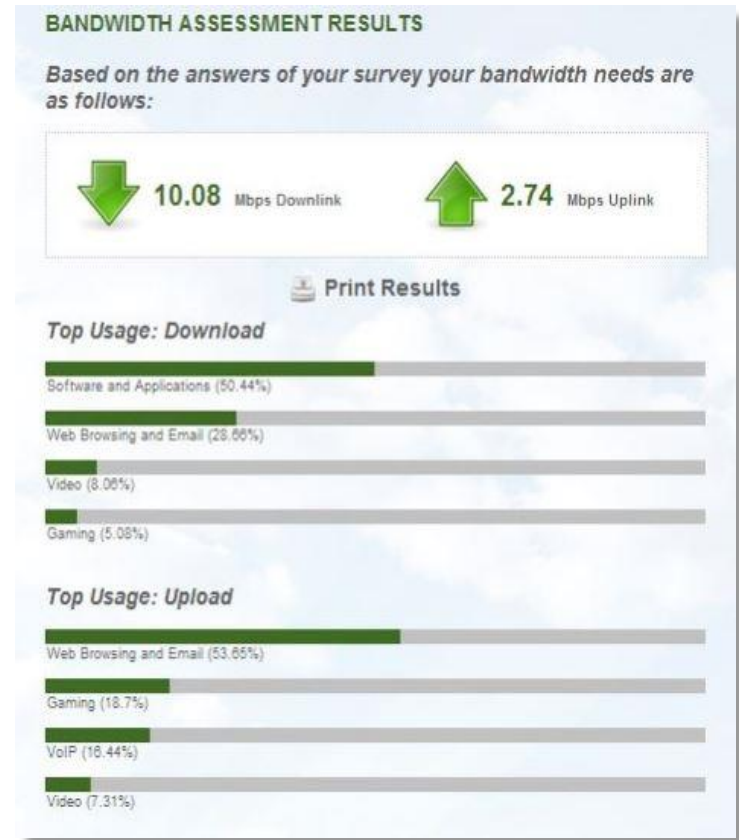
Understanding Demand with the Bandwidth Assessment Tool



The Assessment Report

Understanding Demand with the Bandwidth Assessment Tool

- Assessed Bandwidth Needs
- Download/Upload Usage
- Application Usage



The Assessment Report

Understanding Demand with the Bandwidth Assessment Tool

PROVIDERS

The provider list is based on the assessment address of:

317 Massachusetts Ave NE
Washington, DC 20002

To ensure the accuracy of the provider list, please take a moment to [verify your location](#) if you have yet to do so.

✓ Broadband Providers

Windstream - Digital Subscriber Line (DSL)

↓ 25 Mbps ↑ 25 Mbps

MegaPath Corporation - Digital Subscriber Line (DSL)

↓ 10 Mbps ↑ 10 Mbps

Comcast - Cable

↓ 100 Mbps ↑ 50 Mbps

Verizon Communications Inc. - Digital Subscriber Line (DSL)

↓ 6 Mbps ↑ 0.768 Mbps

Allied Telecom Group, LLC - Digital Subscriber Line (DSL)

↓ 50 Mbps ↑ 50 Mbps

Broadview Networks, Inc. - Digital Subscriber Line (DSL)

↓ 6 Mbps ↑ 6 Mbps

✓ Wireless Broadband Providers

T-Mobile - Mobile Wireless

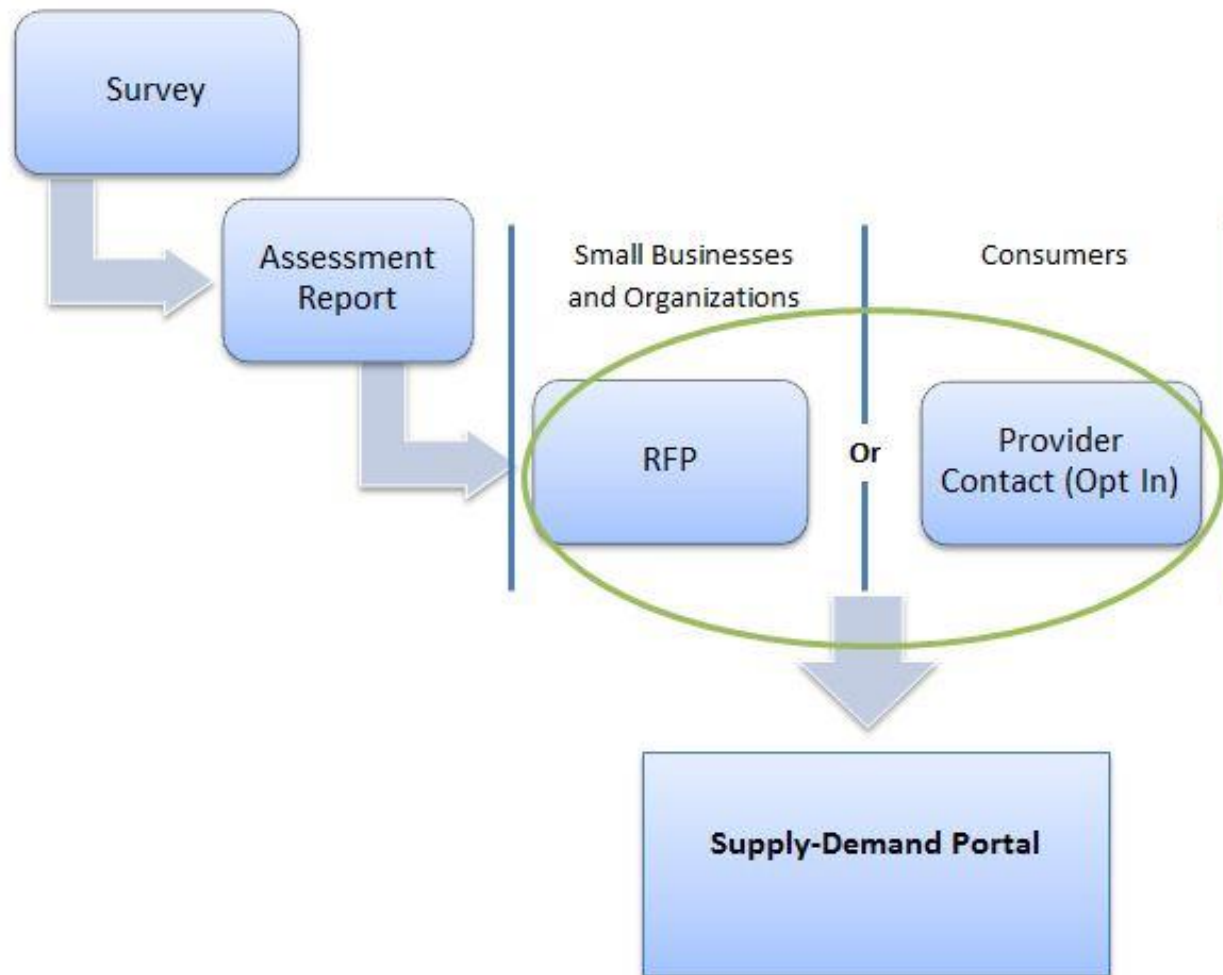
↓ 10 Mbps ↑ 1.5 Mbps

- Current Service
- Broadband Provider by Tech Type
- Assessed Speed Met?
- Current Advertised Speeds

RFP / Procurement Options

RFP / Procurement Options

Understanding Demand with the Bandwidth Assessment Tool



RFP/Procurement Options

Understanding Demand with the Bandwidth Assessment Tool

Businesses/Organizations

- Mini RFP Questionnaire
- Automatic RFP Filed w/ Supply-Demand Portal
- Broadband Providers Respond Directly

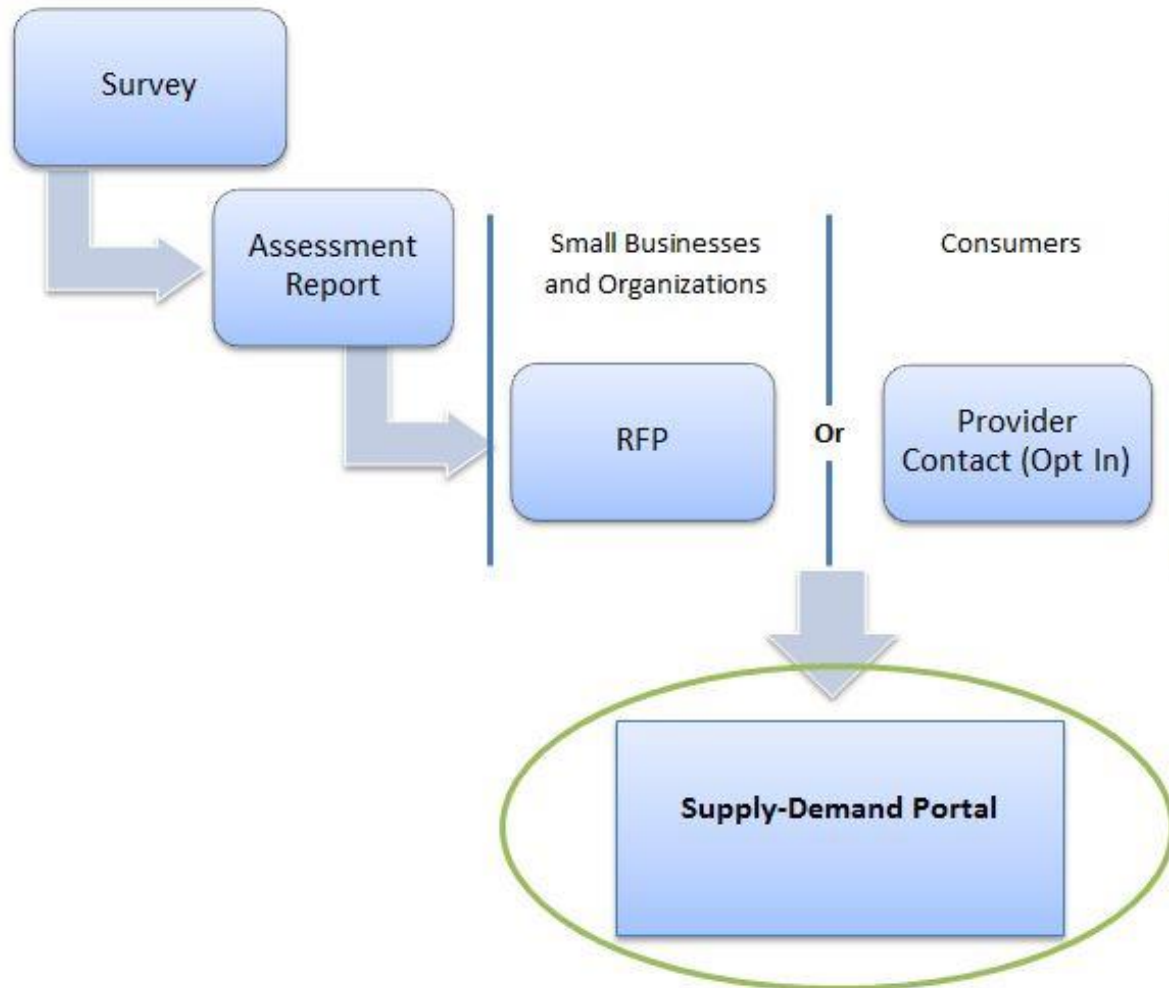
Consumers

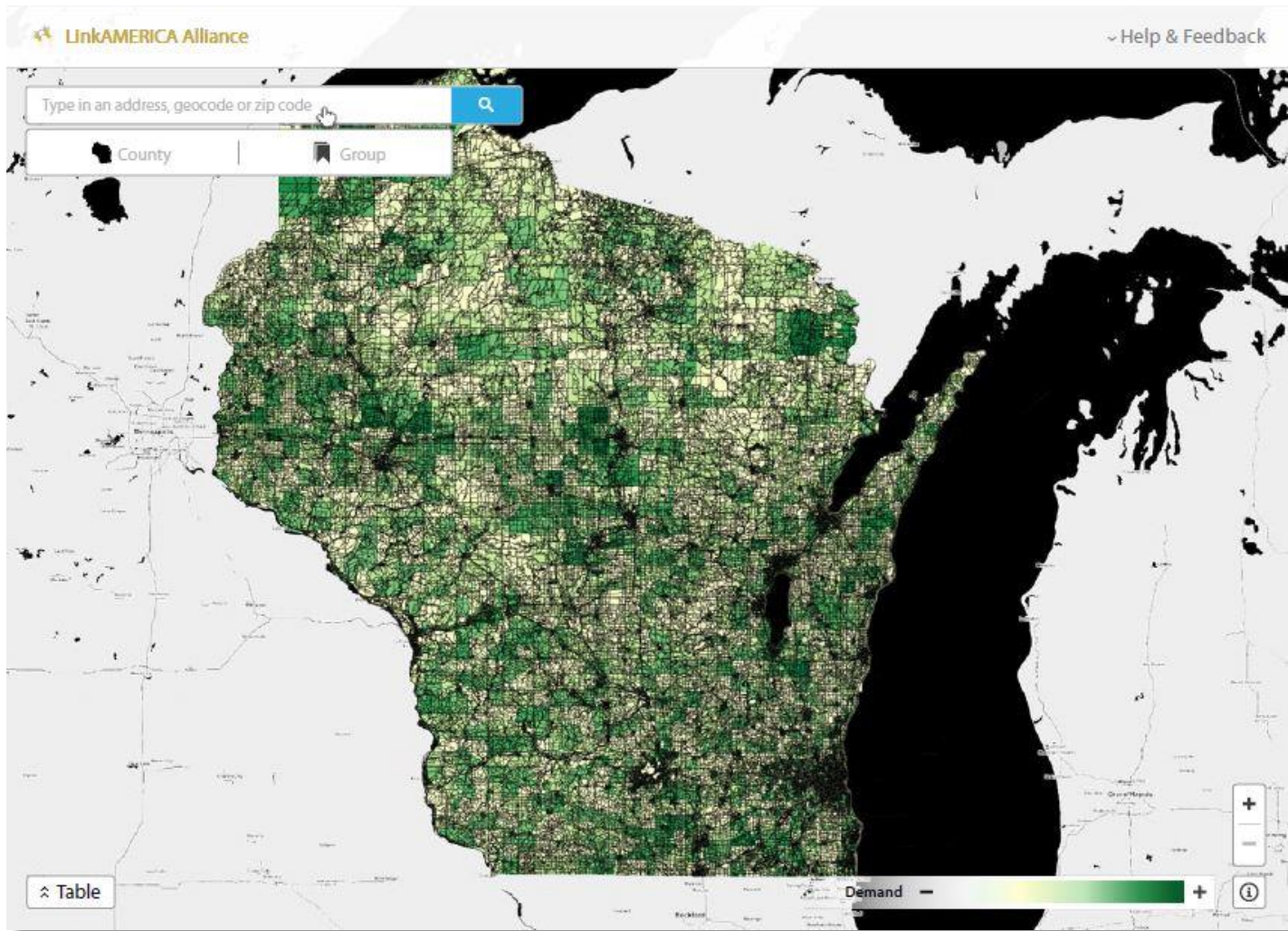
- Opt-In for Broadband Providers to Contact
- Personal Contact Information Protected

Supply – Demand Portal

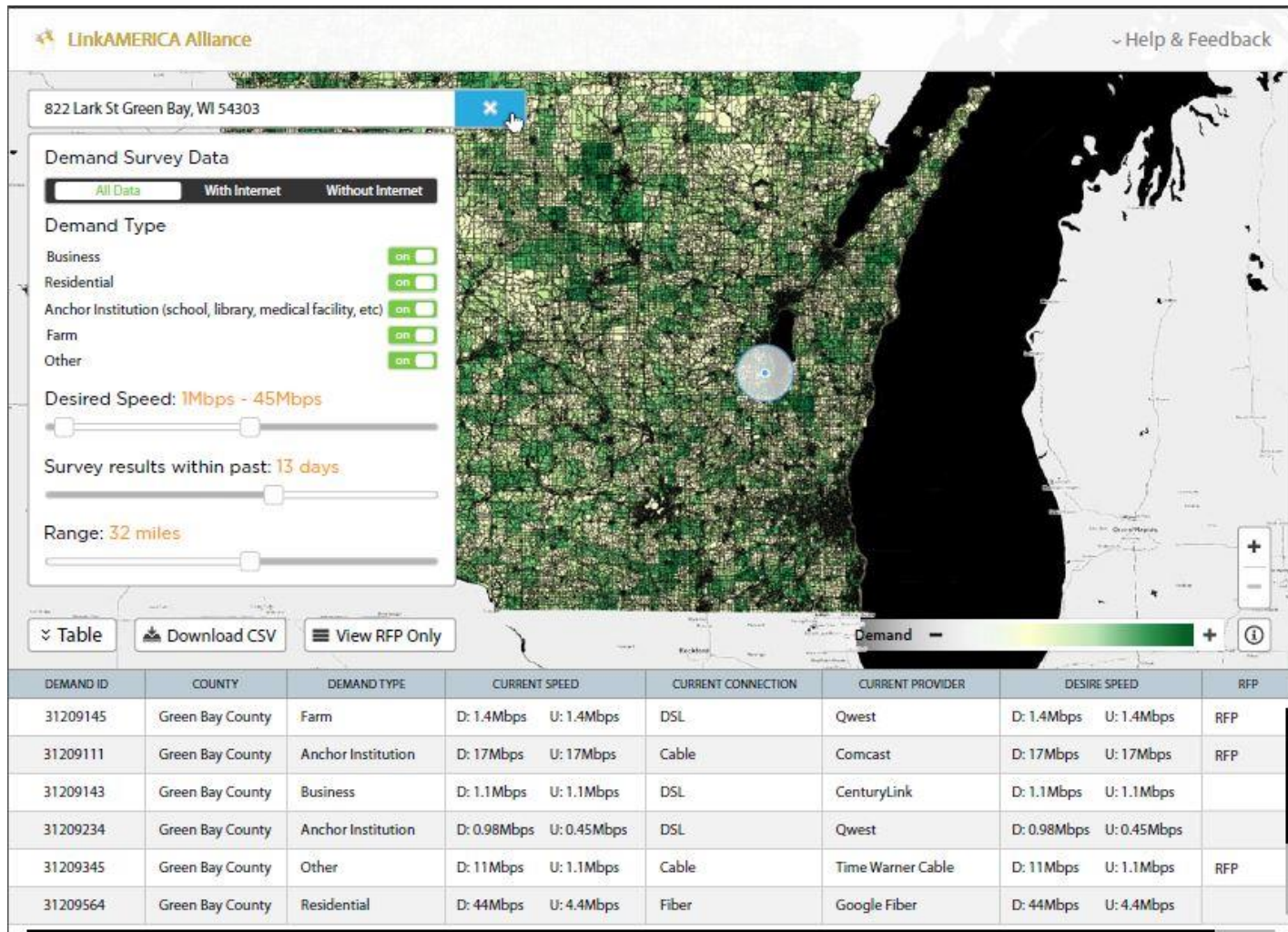
Supply-Demand Portal

Understanding Demand with the Bandwidth Assessment Tool

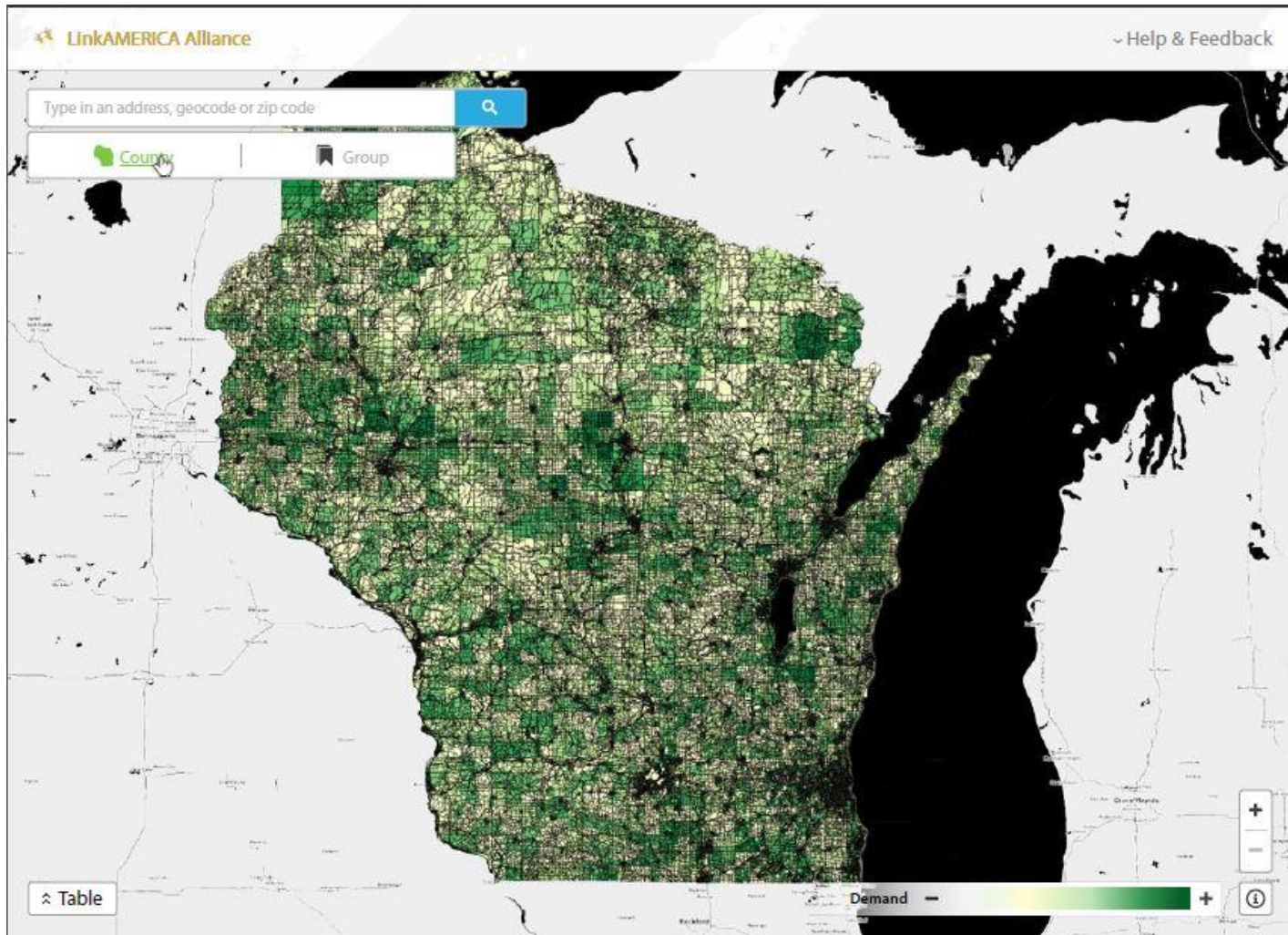




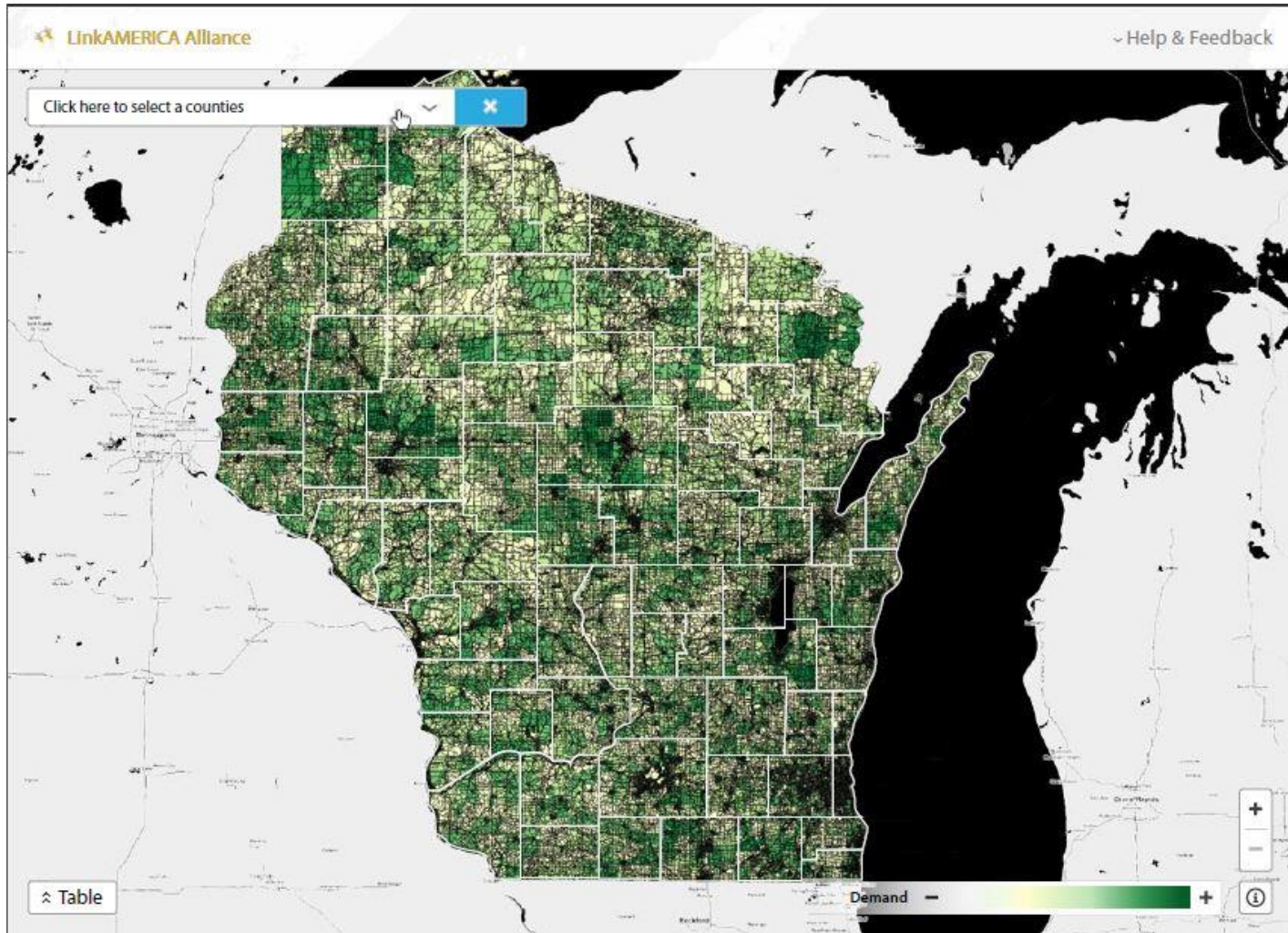
Supply & Demand Portal



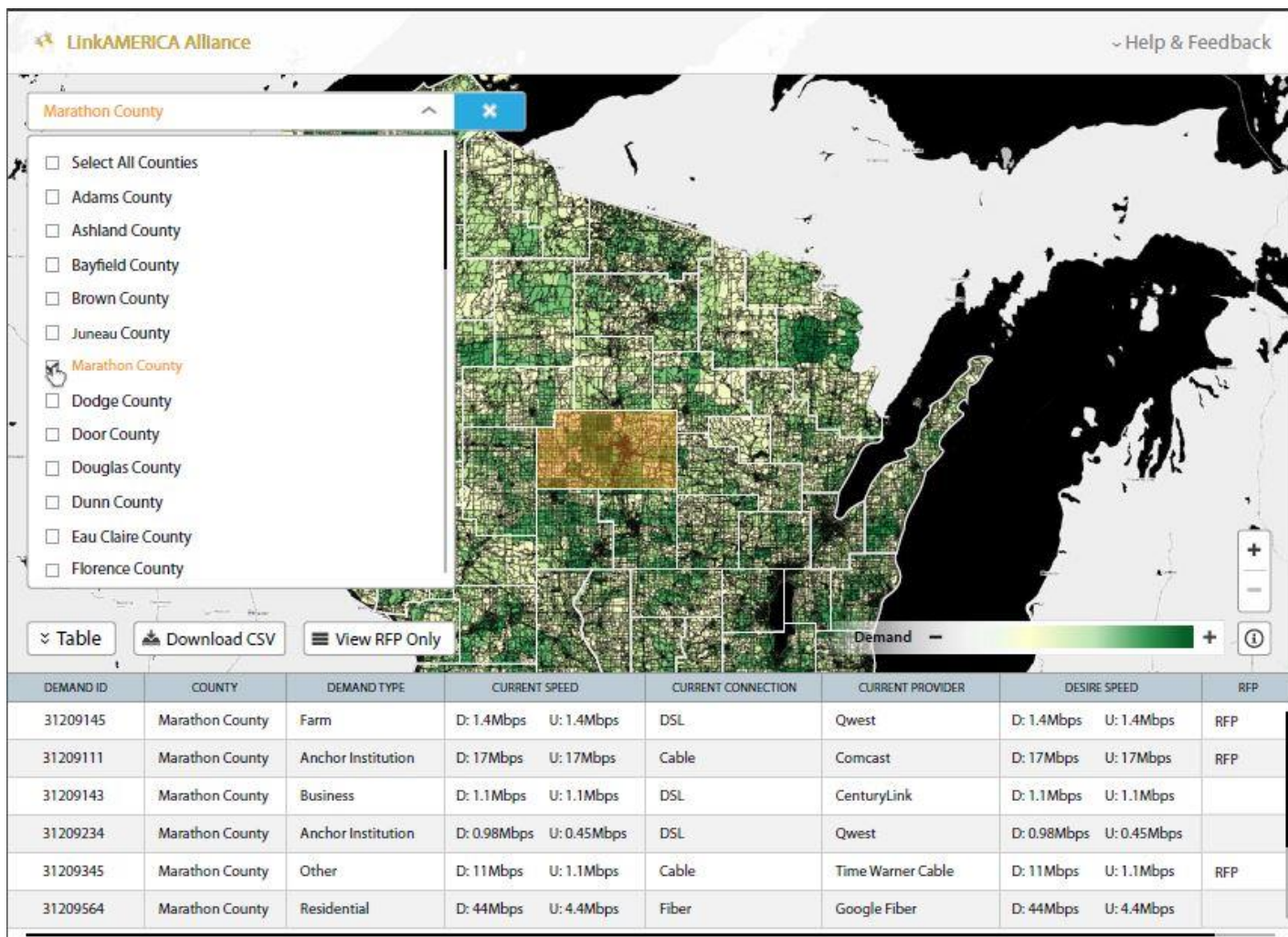
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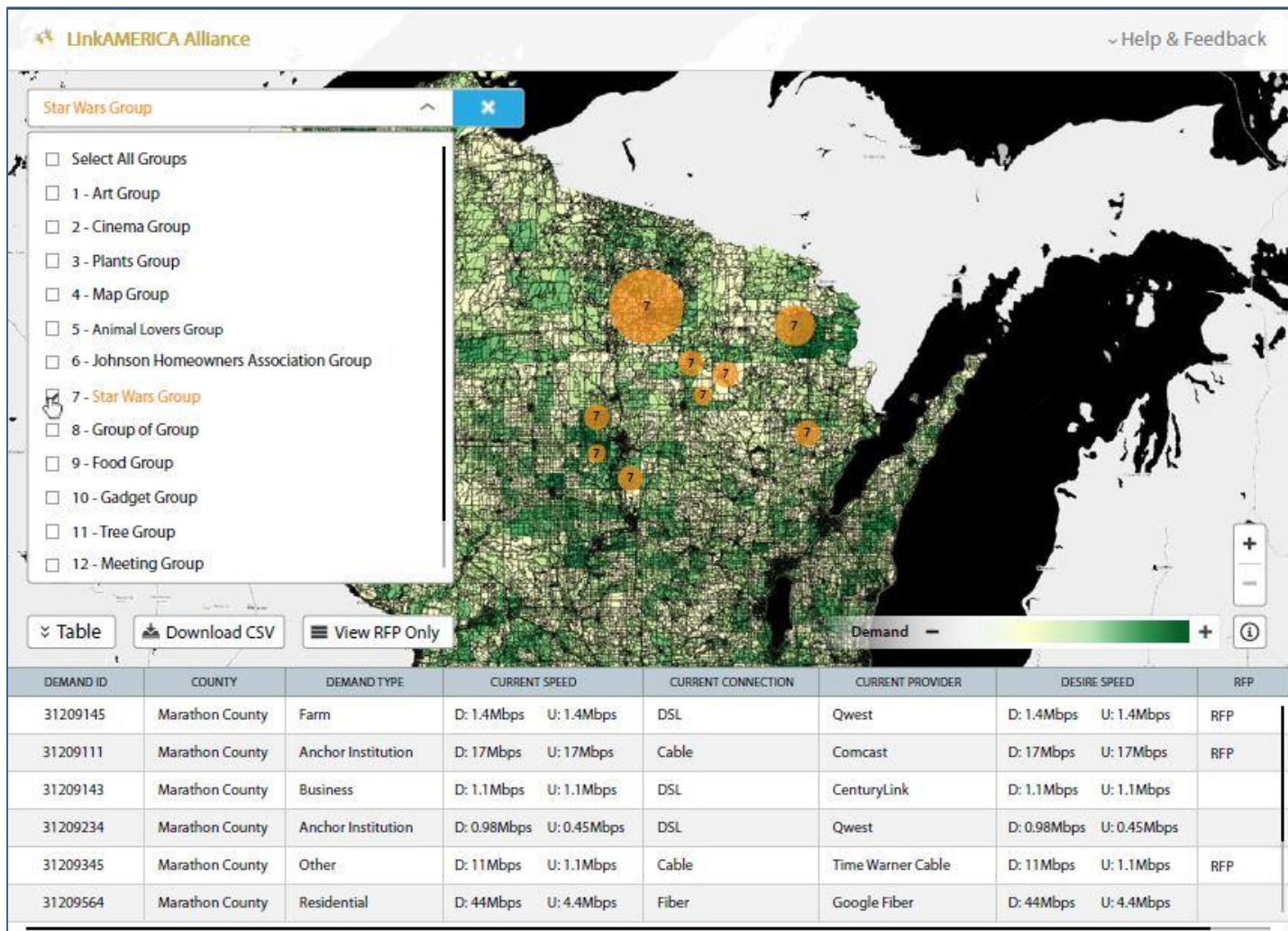
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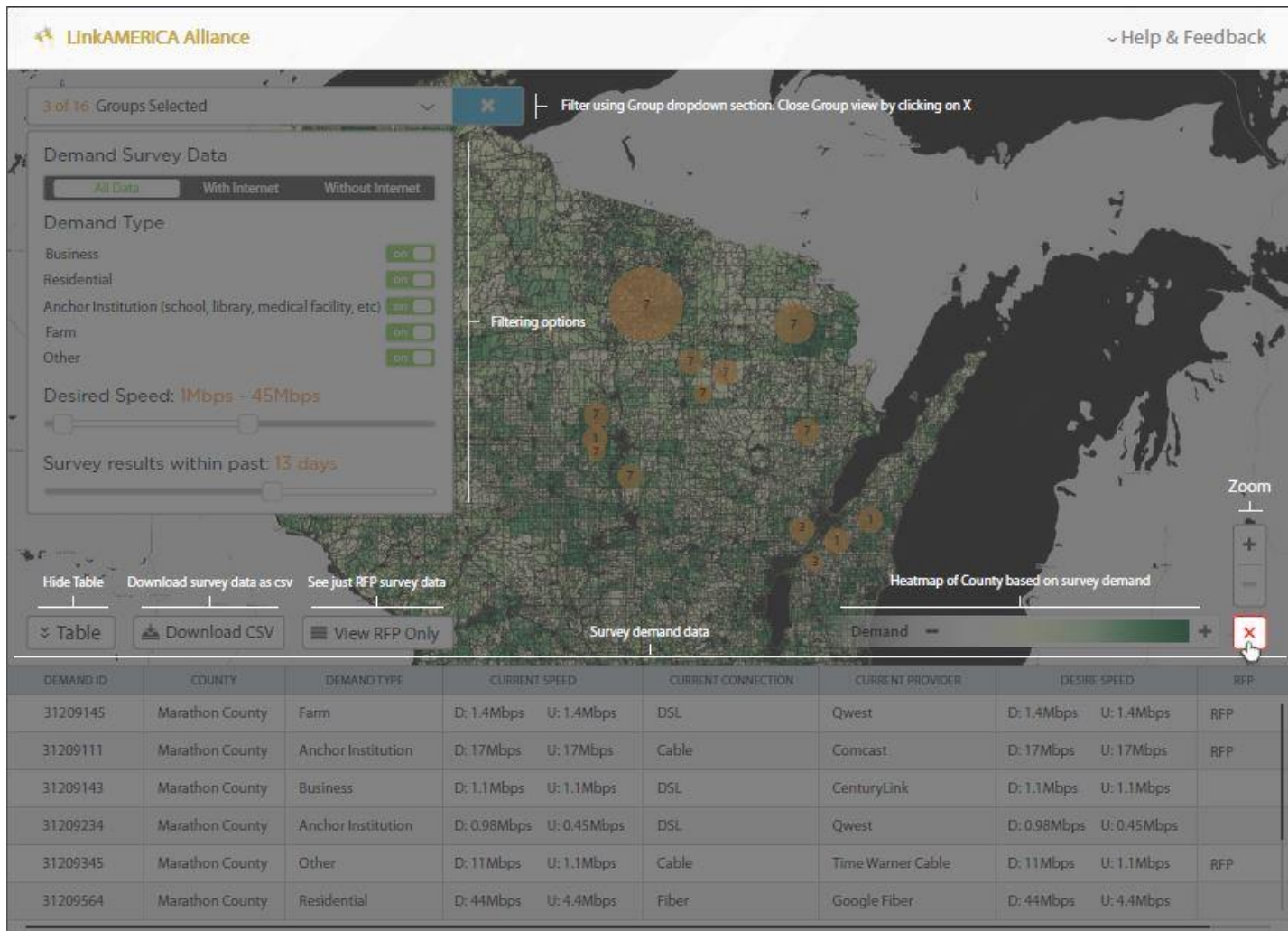
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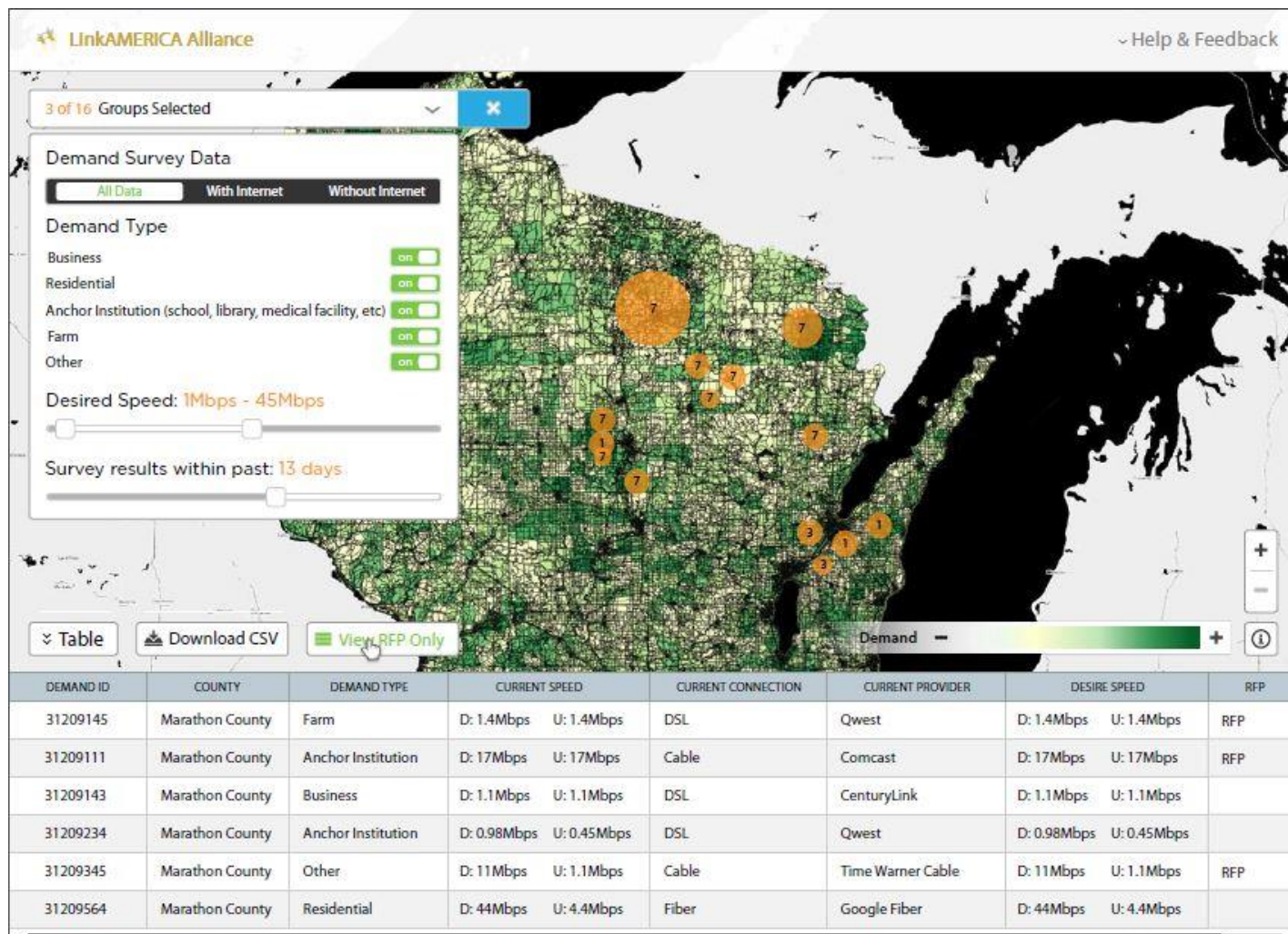
Supply & Demand Portal



Supply & Demand Portal



Supply & Demand Portal



Supply & Demand Portal

[Back to Map](#)

DEMAND ID	COUNTY	DEMAND TYPE	CURRENT SPEED		CURRENT CONNECTION	CURRENT PROVIDER	DESIRE SPEED	
31209145	Green Bay County	Farm	D: 1.4Mbps	U: 1.4Mbps	DSL	Qwest	D: 1.4Mbps	U: 1.4Mbps
31209111	Green Bay County	Anchor Institution	D: 17Mbps	U: 17Mbps	Cable	Comcast	D: 17Mbps	U: 17Mbps
31209143	Green Bay County	Business	D: 1.1Mbps	U: 1.1Mbps	DSL	CenturyLink	D: 1.1Mbps	U: 1.1Mbps
31209234	Green Bay County	Anchor Institution	D: 0.98Mbps	U: 0.45Mbps	DSL	Qwest	D: 0.98Mbps	U: 0.45Mbps
31209345	Green Bay County	Other	D: 11Mbps	U: 1.1Mbps	Cable	Time Warner Cable	D: 11Mbps	U: 1.1Mbps
31209564	Green Bay County	Residential	D: 44Mbps	U: 4.4Mbps	Fiber	Google Fiber	D: 44Mbps	U: 4.4Mbps
31209143	Marathon County	Business	D: 1.1Mbps	U: 1.1Mbps	DSL	CenturyLink	D: 1.1Mbps	U: 1.1Mbps
31209234	Marathon County	Anchor Institution	D: 0.98Mbps	U: 0.45Mbps	DSL	Qwest	D: 0.98Mbps	U: 0.45Mbps
31209345	Marathon County	Other	D: 11Mbps	U: 1.1Mbps	Cable	Time Warner Cable	D: 11Mbps	U: 1.1Mbps
31209564	Marathon County	Residential	D: 44Mbps	U: 4.4Mbps	Fiber	Google Fiber	D: 44Mbps	U: 4.4Mbps
31209143	Marathon County	Business	D: 1.1Mbps	U: 1.1Mbps	DSL	CenturyLink	D: 1.1Mbps	U: 1.1Mbps
31209234	Marathon County	Anchor Institution	D: 0.98Mbps	U: 0.45Mbps	DSL	Qwest	D: 0.98Mbps	U: 0.45Mbps
31209345	Marathon County	Other	D: 11Mbps	U: 1.1Mbps	Cable	Time Warner Cable	D: 11Mbps	U: 1.1Mbps
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31209345	Marathon County	Other	D: 11Mbps	U: 1.1Mbps	Cable	Time Warner Cable	D: 11Mbps	U: 1.1Mbps

Supply & Demand Portal

Potential Uses

Potential Uses

Understanding Demand with the Bandwidth Assessment Tool

Use Case Scenarios

- Community Leader/Economic Development
- Industry Group/Association
- Small Business – Growth or Relocation

Release Schedule & Training/Support

Release Schedule/Support

Understanding Demand with the Bandwidth Assessment Tool

Release Schedule

- BETA Assessment Survey and Report Application available now. <https://apps.costquest.com/bat/home>
- BETA RFP/Procurement Functionality and Supply-Demand Portal available on January 31.
- Phase 2 Release – Q2 - 2014

Release Schedule/Support

Understanding Demand with the Bandwidth Assessment Tool

Training/Support

- This Spring
- Webinar/Demos
 - Stakeholders/Community & Economic Development Orgs
 - Broadband Providers

Questions & Answers